

# Pragmatics-based MT and the Translation of Puns

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**Abstract.** This paper describes an approach to translation which recognizes a threefold distinction among the intentions of the author of a text: the locutionary intent (how something is said), the illocutionary intent (what is being said) and the perlocutionary intent (why something is being said) (cf. Austin, 1962; Searle, 1969). We claim that all three are taken into consideration in the translation process and that any of the three may be used to justify a translator's choices. We present a case-study of the application of the framework to the translation of puns, in particular to one pun. We show that this approach can help to identify, quantify and qualify the choices of the translators.

## 1. Introduction

In this paper, we describe an approach to translation which recognizes a threefold distinction among the intentions of the author of a text: the locutionary intent (how something is said), the illocutionary intent (what is being said) and the perlocutionary intent (why something is being said) (cf. Austin, 1962; Searle, 1969). We claim that all three are taken into consideration in the translation process and that any of the three may be used to justify a translator's choices. We present a case-study of the application of the framework to the translation of puns, in particular to one pun. We show that this approach can help to identify, quantify and qualify the choices of the translators.

The approach (developed as the basis for a computational model of translation, see Farwell & Helmreich, 2001, 1999; Helmreich & Farwell, 1998) assumes a knowledge base of beliefs (i.e., those of the translator), a method of beliefs ascription and a default inferencing procedure which allows the construction of viewpoints for the participants in the translation process. Against this context, novel linguistic input is

processed, resulting in an extended context. Differences between this extended context and the initial context constitute the interpretation of that input.

We apply this framework in analyzing the choices translators have made in the translation of:

*Latin America: ACCION speaks louder than words*

the title of an article from the UN monthly the UNESCO Courier, which is published in some 30 different languages. The article describes the dealings of ACCION International, a non-profit organization providing technical assistance for microfinancial institutions and microenterprises in underdeveloped areas of Latin America and the US. We show that a pragmatics-based interpretation of this title and the intentions of the author, and not simply the semantic content, serves as the basis for the translations. The choices made by each translator conform to such an interpretation and are concerned only secondarily with how the information is expressed. In particular, we claim that some of the translators view the entertainment aspect of the title (part of the perlocutionary intent) as important while others view the underlying message (the illocutionary intent) as important.

## 2. Framework

Following Austin, we recognize a three-fold distinction in a speaker's intention: a locutionary intent, an illocutionary intent, and an intended perlocutionary effect. With each intention comes a representation of the act performed as a result of that intention. Austin separates the locutionary act into three super-imposed acts: the phonetic act, the phatic act, and the rhetic act. The phonetic act is uttering a series of noises, while the phatic act is uttering these noises with the intent that they be part of the vocabulary and in accord with the grammatical rules of a language. The rhetic act consists of uttering these words with a "more-or-less definite sense and reference" (Austin, 1962, p. 95). The phonology, syntax, and lexicon involved in the first two acts are language-specific, and our interest lies primarily in the third act, which includes semantics (sense) and some pragmatics (reference).

In addition, following the pattern of indirect speech acts (see below), we allow for indirect locutionary acts. For instance, metonymy would be such an indirect locutionary act, as in the sentence, "The White House reported today that ...". There is, on the one hand, a direct reference to the White House in Washington, but, at the same time, there is equally a more-or-less definite reference to a spokesperson for the executive branch of the US government. In puns and other types of word play, there is frequently such an indirect locutionary act.

Austin does not provide a simple definition of an illocutionary act, except to say that it is an act performed *in* saying something, rather than an act *of* saying something (Austin, p. 99). The illocutionary act generally connects the speaker and the addressees in expressing exactly what the speaker intends to communicate to the addressee: is the speaker informing the addressee, or asking the addressee, or warning the addressee? Often this level of intent is indicated merely by encompassing the representation of the locutionary act with a higher predicate indicating this intent: informing that X, warning that X, asking whether X. However, the illocutionary act is not simply this higher predicate, but the higher predicate along with the actual information or request or warning communicated.

In addition, the information conveyed through the illocutionary act may need to be significantly adjusted or altered from the representation of the locutionary act. First, following Searle and others (Searle, 1969, 1975; Davidson, 1975), there are *indirect speech acts* in which a different illocutionary force is attached to the utterance: *Can you pass the salt?* is a request for information, but usually functions as a request for action. Secondly, the content of the locutionary act must be further specified. For example, metaphorical usage may need to be clarified. If I say, "John is a pig," the illocutionary act needs to specify whether I am stating that John is fat, that John is messy, or that John is a policeman.

Thirdly, there is a perlocutionary intent that is the goal the speaker wishes to achieve by providing this particular contribution at this particular point in the discourse. It is the intended effect the speaker wishes to have on the addressee, that is to say, it is why the speaker wishes to communicate. These intents may also be multiple, but we have not found a need to distinguish between a primary perlocutionary intent and indirect or secondary ones.

We also propose a beliefs-based account of speaker intention that relies on a system for ascribing beliefs to the different participants in the translation process: the translator, the author, the author's source language addressee and the translator's target language addressee. Here we specifically refer to the ViewGen beliefs ascription system (Ballim & Wilks, 1990) that exploits a single ascription rule – assume the addressee believes what the speaker believes unless there is evidence to the contrary. This beliefs-based account also relies on a default inferencing engine such as ATTMeta (Barnden, Helmreich, Iverson & Stein, 1994) in order to infer additional beliefs from existing beliefs, especially for connecting new information in a coherent manner to a dynamic utterance context during discourse, but also to detect contradictory evidence during the ascription process.

This apparatus is used to define the three levels of intention which, in turn, are central to identifying, classifying and justifying translation options.

### 3. Interpretation

Processing a text or an individual contribution relies on inferencing and, in particular, inferencing that leads to specifying one level of intention given another. Such inferencing relies on ancillary premises and default reasoning all of which is ascribed to the addressee by the speaker. In understanding any given utterance, it is the premises introduced and the inferences made, taken together with the conclusions arrived at, that constitute the interpretation and not simply the conclusion itself.

By way of example, suppose John says to Mary “Boy, am I thirsty!” At the locutionary level there is an expletive of emphasis and a statement that the speaker is thirsty. Following Austin, we assume that the identification of “the speaker” with John is made at this level, as well as the connection from “thirsty” to a specific physical sensation.

At the illocutionary level, the direct speech act is identified as an informing of Mary that John is experiencing this specific physical sensation. However, under appropriate circumstances (which will become part of the interpretation) it may be inferred from this informing that what John actually wishes to communicate is that he would like something to drink. Being thirsty is an undesirable state of affairs. Drinking something may diminish thirst.

Therefore, John would like to drink something. If John intends to encourage Mary to follow this line of inferencing, then it is part of the intended interpretation and, once the utterance is made, it is assumed to be understood by Mary. Furthermore, from the illocutionary level it may be inferred, given the appropriate contextual circumstances, that John is hoping that Mary will offer him a drink. Wanting a drink is an undesirable state-of-affairs. Gaining possession of a drink can diminish that unpleasantness. Mary can provide John with a drink. Therefore, Mary should offer to provide John with a drink (if not simply provide him or her with one). It is, of course, important that Mary indeed has access to a drink and, perhaps, that John for whatever reason does not. No doubt other contextual circumstances might be equally relevant. Again, if the above line of reasoning is in fact carried out by John in order to produce this perlocutionary effect, knowledge of this intent is ascribed to Mary and becomes part of the intended interpretation of the utterance. This example is represented visually in Figure 1.

### 4. Translation

From the point of view of translation, this pragmatics-based approach implies that the goal of the translation process is to produce a locutionary act in the target language such that

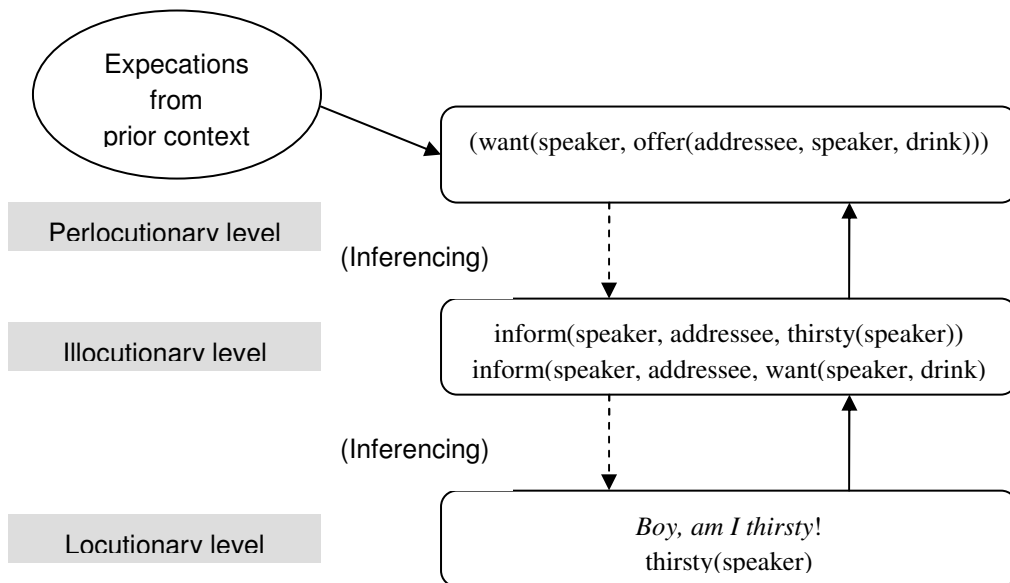


Figure 1. Simple interpretation – single intent with implicature

the target audience can arrive at the same interpretation (or as similar an interpretation as possible) as the source language audience presumably arrived at.

Because it is often impossible to come up with target language translations that correspond at every level to the original source language interpretation, we suggest that there is a general fallback strategy which may be used whenever the ideal situation of complete correspondence cannot be achieved. It consists of translating at the closest level of speaker intention to the locutionary act that leads to the most similar interpretation. Where possible take into account multiple intentions but otherwise pick one, the one deemed most important given the current state of the discourse.

Following this general translation strategy, the initial objective is to provide a “literal” translation. That is to say, attempt to translate at the locutionary level initially if the target audience can infer from the translation the/an interpretation that corresponds to all levels to that of the source language addressees.

Curiously, this may also be the appropriate approach if the translator cannot reliably interpret the source language utterance since illocutionary and perlocutionary intents are not, in this case, available.

This initial strategy, however, may fail, particularly if there is a secondary locutionary act that is expressed in the source language, but is unavailable in the target language (as in the case of puns or other word play). The fall-back strategy is then to provide a translation based on the intended meaning of the text. Here, the translation is at the level of the illocutionary intent only so long as from that translation the target audience can infer an interpretation similar in all other respects to that of the source language audience apart from the locutionary intent and it is clear that the target audience would not be able to infer that interpretation from a “literal” translation

Finally, if a translation based on the illocutionary level fails, the objective then would be to provide a translation based on the perlocutionary intent. That is, the aim is to produce a contextually coherent utterance from which the same perlocutionary intent can be inferred if, in fact, the target language audience

could not otherwise infer the perlocutionary intent from a translation based on the illocutionary level.

## 5. Source Language Interpretation

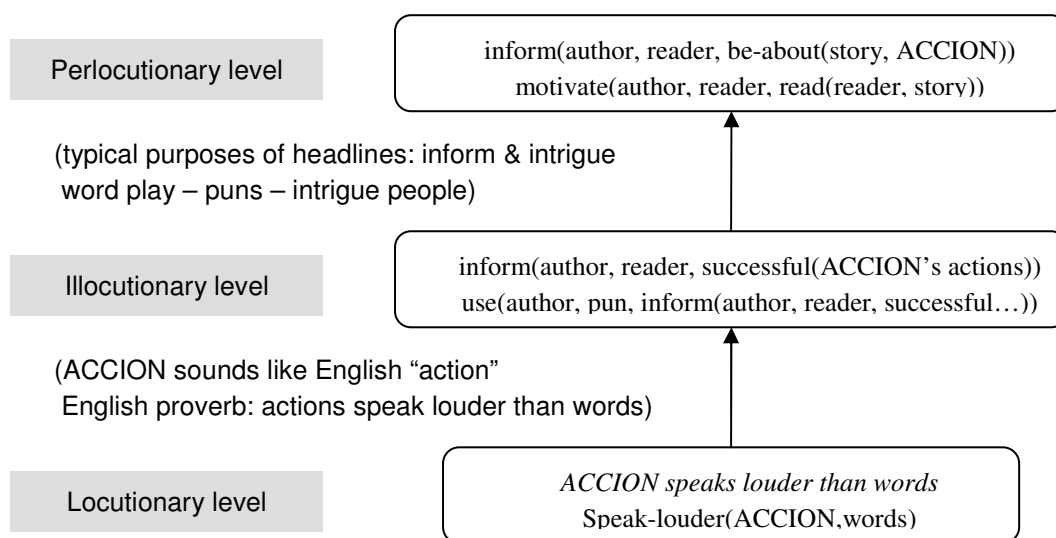
Turning now to our particular problem of translating the title of the English version of the UNESCO Courier article, it should first be mentioned that, because of the author’s background and the cleverness of the title, it is assumed that English is the original source language.

English: *LATIN AMERICA: ACCION SPEAKS LOUDER THAN WORDS*

At the locutionary level there are mentions of Latin America and ACCION and there is a description of a generic speaking event in which ACCION and words are compared with respect to loudness with which they speak. We suggest that there is also a secondary locutionary act, namely, a locutionary act of a slight variation of the English proverb, “Actions speak louder than words.” This dual locutionary act is the source of the translation problem. For those speakers who are bilingual, there may, in addition, be the intent to connect the Spanish word “accion” with its English translation, “action.”

At the illocutionary level, these two locutionary acts are conjoined into a single illocutionary act. The English proverb is generally applied in situations where a person’s actions differ from or are in contradiction with the communications, promises, or words of that person. The implication is that that person’s true intent is indicated more accurately by what they do than by what they say. In this context, ACCION, the organization, is said to “speak more loudly than words.” That is, ACCION, like “action”, communicates its goals more forcefully, more accurately, more truthfully than words. In any case, however, it can be inferred that ACCION acts, forcefully and successfully.

Thus, the interpretation at the illocutionary level is an informing of the audience that ACCION acts successfully and forcefully in pursuit of its professed aims. To reach this interpretation, it is necessary to infer that it is ACCION’s actions that are of interest here, a metonymic inference that is facilitated by the phonetic similarity of ACCION and “action.”



**Figure 2. Article headline – word play reflects double intentions**

Finally, at the level of perlocutionary intent, recognizing that the text in question is a headline (along with the common knowledge that titles/headlines generally encapsulate article content) leads to the interpretation that the article is about ACCION. Quite independently, the reader will recognize that ACCION and “action” sound alike and, for the bilingual, that they often mean the same thing. In this context, the author appears to be playing with words. Assuming that word play is generally entertaining, it is reasonable to assume that the author intends to intrigue the audience sufficiently to follow up and find out exactly what ACCION’s actions are, and why they have been so successful. These premises, lines of reasoning and conclusions are presented visually in Figure 2. Together they make up the interpretation of the text and provide the communicative goal for the translator.

## 6. Empirical evidence and Discussion

The data consists of the translations of the title above in 14 different languages including Arabic, Bulgarian, Catalan, Chinese, French, German, Greek, Italian, Malay, Persian, Russian, Portuguese, Spanish and Vietnamese.

We examine these various translations to see what kind of translation strategy is adopted and

how it is carried out. We examine whether translation made at the locutionary level actually support the inferences necessary to reach the illocutionary force and intended perlocutionary effect. Similarly, we examine whether translations made at the illocutionary level can be used to produce the intended perlocutionary effects.

The first two cases, Chinese and Arabic, have focused on translation at the locutionary level, the level of words and constructions. However, while the results in one case, Chinese, are rather successful, the results in the other are less so. Chinese appears to have an idiomatic equivalent to English saying “actions speaks louder than words” and the translator has taken advantage of that construction in rendering the translation.

Chinese: CODING NOT AVAILABLE

Gloss: Latin America /ACCION /surpass /speech

Trans: LATIN AMERICA: ACCION speaks louder than words

It is true that the play on words, the pun itself, is not carried over but the illocutionary and at least one, if not both, of the perlocutionary effects are successfully captured.

In regard to the Arabic translation on the other hand, translating at a locutionary level results in at least partial failure at the

illocutionary level and for at least one of the intended perlocutionary effects.

Arabic: بقلم الكلمات من أعلى أكسيون صوت: اللاتينية أمريكا: أوتيرو ماريا

Gloss: words-from/significant/more/action/voice /Latin America

Trans: Latin America: The voice of action is more significant than words

The problem is that the reader does not know what the article will be about (other than that it concerns Latin America). At the locutionary level there is no reference to ACCION nor to the kind of organization it is and, thus, at the perlocutionary level, the reader does not know it is an article about that organization.

The next three cases reflect at least partial abandonment of the locutionary intent and a focus on translating at the illocutionary level. For Russian and Malay this means expressing the conventional interpretation of the original English saying "literally."

Russian: *ЛАТИНСКАЯ АМЕРИКА: ДЕЛА "АКСЬОН" ...*

Gloss: Latin America /business/"ACCION"/more convincing/words

Trans: LATIN AMERICA: DEEDS OF "ACCION" MORE CONVINCING THAN WORDS

Malay: *AMERIKA LLATIN: ACCION BERTINDAK, BUKAN SEKADAR BERCAKAP*

Gloss: America Latin/ACCION/act/not/just/speak

Trans: ACCION acts rather than just speaks

The translations succeed at the illocutionary level by referring to ACCION and its way of behaving and probably succeed as well with respect to both aspects of perlocutionary intent – informing the reader of the content of the article and piquing the readers interest, though the means of intriguing the reader (a play on words) has been replaced with a summary that does not provide specific information about what ACCION does and so invites the reader to delve into the article to find out.

The Bulgarian translation, while more directly representing the illocutionary intent, still suffers from the same lack of specificity as the Arabic translation. There is no mention the ACCION and so the reader does not know who the central player is. Still, it does succeed expressing part of the perlocutionary intent.

Bulgrn: *ЛАТИНСКА АМЕРИКА: ДЕЛАТА ГОВОРЯТ ПО-ДОБРЕ ДУМИТЕ*

Gloss: Latin America/deeds/tell/of/good/ intentions

Trans: LATIN AMERICA: DEEDS TELL OF GOOD INTENTIONS

The remaining cases all focus on translation at the level of perlocutionary intent. In the case of Catalan, French, Greek, Italian, Portuguese and Spanish, the translators have expressed the primary information aspect of the perlocutionary intent although there is no mention of ACCION per se. Interestingly, they have expressed that intent in part by exploiting a metaphor, x-ray as analysis, and thus better achieve the perlocutionary intent of intriguing the reader.

Catalan: *AMÈRICA LLATINA: RADIOGRAFIA D'UNA PROESA*

French: *AMÉRIQUE LATINE: RADIOGRAPHIE D'UNE RÉUSSITE*

Greek: *ΛΑΤΙΝΙΚΗ ΑΜΕΡΙΚΗ: ΑΚΤΙΝΟΓΡΑΦΙΑ ΜΙΑΣ ΕΠΙΤΥΧΙΑΣ*

Italian: *AMERICA LATIN: RADIOGRAFIA DI UN SUCCESSO*

Portgs: *AMÉRICA LATIN: RADIOGRAFIA DE UM SUCESSO*

Spanish: *AMÉRICA LATINA: RADIOGRAFÍA DE UNA PROEZA*

Gloss: America Latin /X-ray/of/an/heroic-feat/ success

Trans: LATIN AMERICA: X-RAY OF AN HEROIC DEED/SUCCESS

The fact that all these translations exploit the same metaphor may well be due to the use of one these languages, probably French or Spanish, as essentially a secondary source language. That is to say, the article was first translated into French or Spanish and then that translation, in turn, was used as a source text by the other translators.

The remaining three cases, German, Vietnamese and Persian are also examples of translation at perlocutionary level as well, but in these cases the translators have focussed primarily on rendering the informative aspect of the perlocutionary intent only, which no doubt is the more important of the two aspects.

German: *Erfolgsgeschichte einer Bank*

Gloss: success-story/of-a /bank

Trans: success story of a bank

Vietnms: *Châu Mỹ Latinh: Một Mô Hình Thành Công*  
 Gloss: Latin America/working-model/success  
 Trans: Latin America: working model of success  
 Persian: CODING NOT AVAIABLE  
 Gloss: America-ez/Latin/Activity-Plur-ez  
 /"ACCION"/International  
 Trans: Latin America: Activities of ACCION  
 International

It is likely that the German and Vietnamese were produced using French or Spanish as a source language while the Persian translation is more based on English.

## 7. Conclusion

We have presented a pragmatics-based approach to translation that recognizes three levels of speaker intent and uses a beliefs-based approach to model the process. We have presented a concrete case of translation that focusses on a bilingual pun. The data set illustrates the full range of the different possible variations of a proposed general strategy for translation that has been defined in terms of these three level of speaker's intent. We believe this approach to be useful in analyzing actual translations as well as for incorporation in a computational implementation of a high-quality machine translation system.

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